

Statistics:

- basin area = 166 mi² (106,486 acres)
- average precipitation = 35 inches
- peak elevation = 2,730 feet
- length = 25 mi
- width = 5 to 10 mi

Sonoma Creek Watershed



Petaluma

Sonoma

Napa

Vallejo

San Pablo
Bay

Land Use Intensity in Sonoma Valley

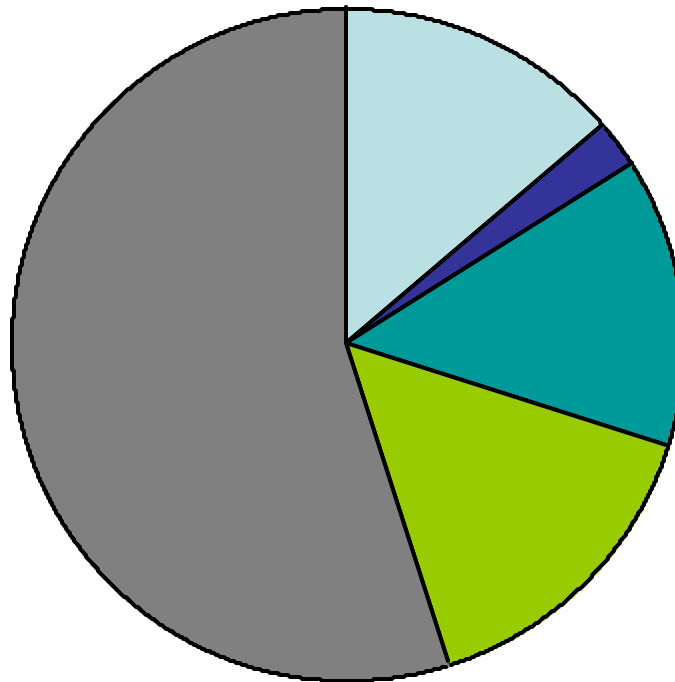
urban

paved

vineyard

other ag

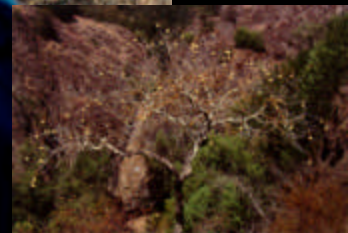
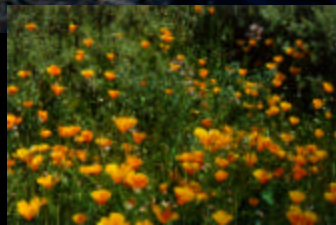
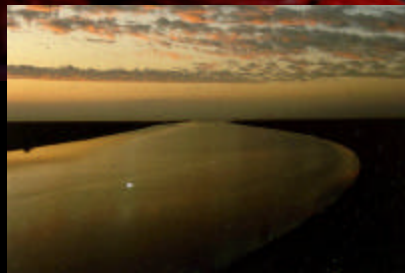
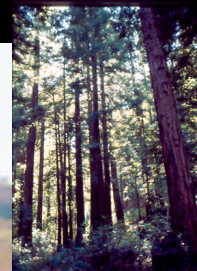
natural



■ 40,000 people

■ 166 square miles

■ 241 people per square mile















Sonoma Ecology Center

The mission of the Sonoma Ecology Center
is to work toward a condition of sustainable ecological health
in the Sonoma Valley, through community-supported
research, education, restoration, and preservation.



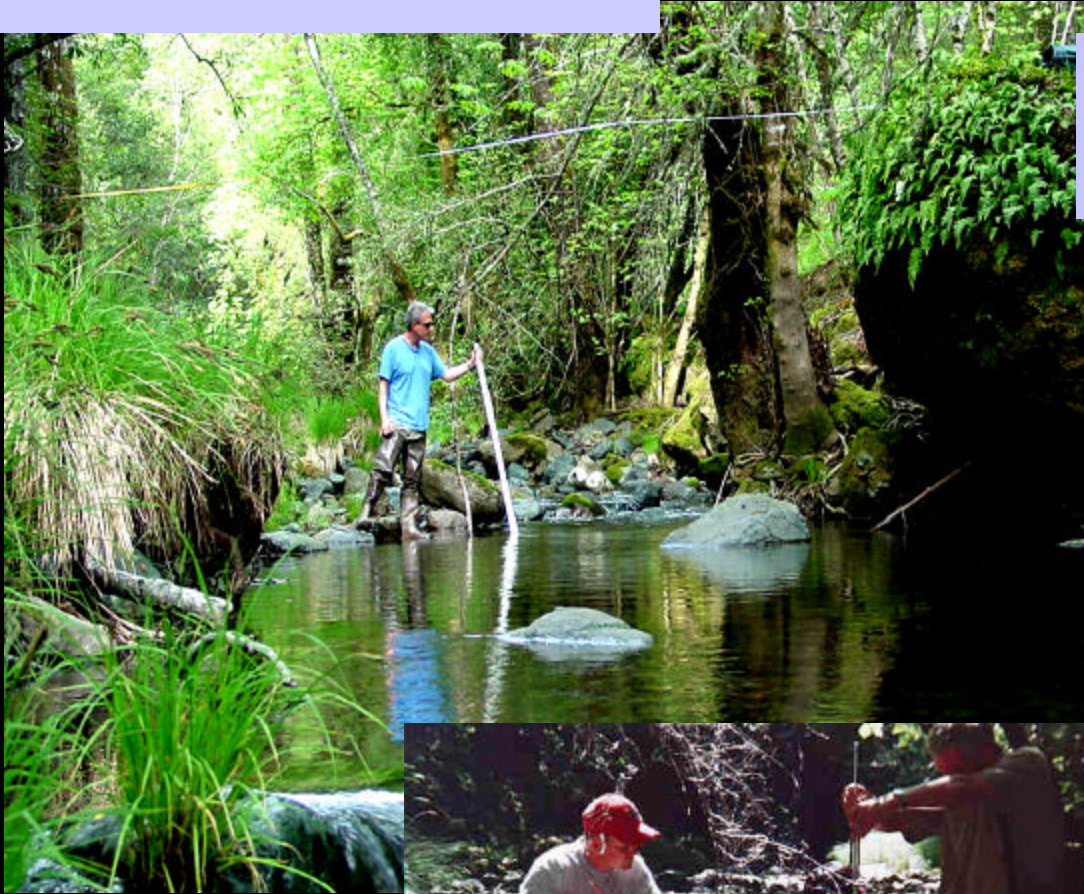
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Funder	Project Type	\$1,000s	Start
	Animal waste systems		1990
Northwest Emergency Assistance Project	Fish habitat survey	45	1995
CALFED Eco. Resto.	Instream habitat enhancement		1996
CALFED Eco. Resto.	K-12 watershed education		1996
CALFED Eco. Resto.	Landowner outreach and education		1996
CALFED Eco. Resto.	Supervised volunteer monitoring		1996
CALFED Eco. Resto.	Vineyard demonstration projects, ranch plans		1996
CALFED Eco. Resto.	Water temperature monitoring		1996
CALFED, DFG	Informational evening lectures		1996
SWRCB 319h	Watershed Enhancement Plan		1996
	The Vineyard Manual		1999

Fish Habitat Assessment

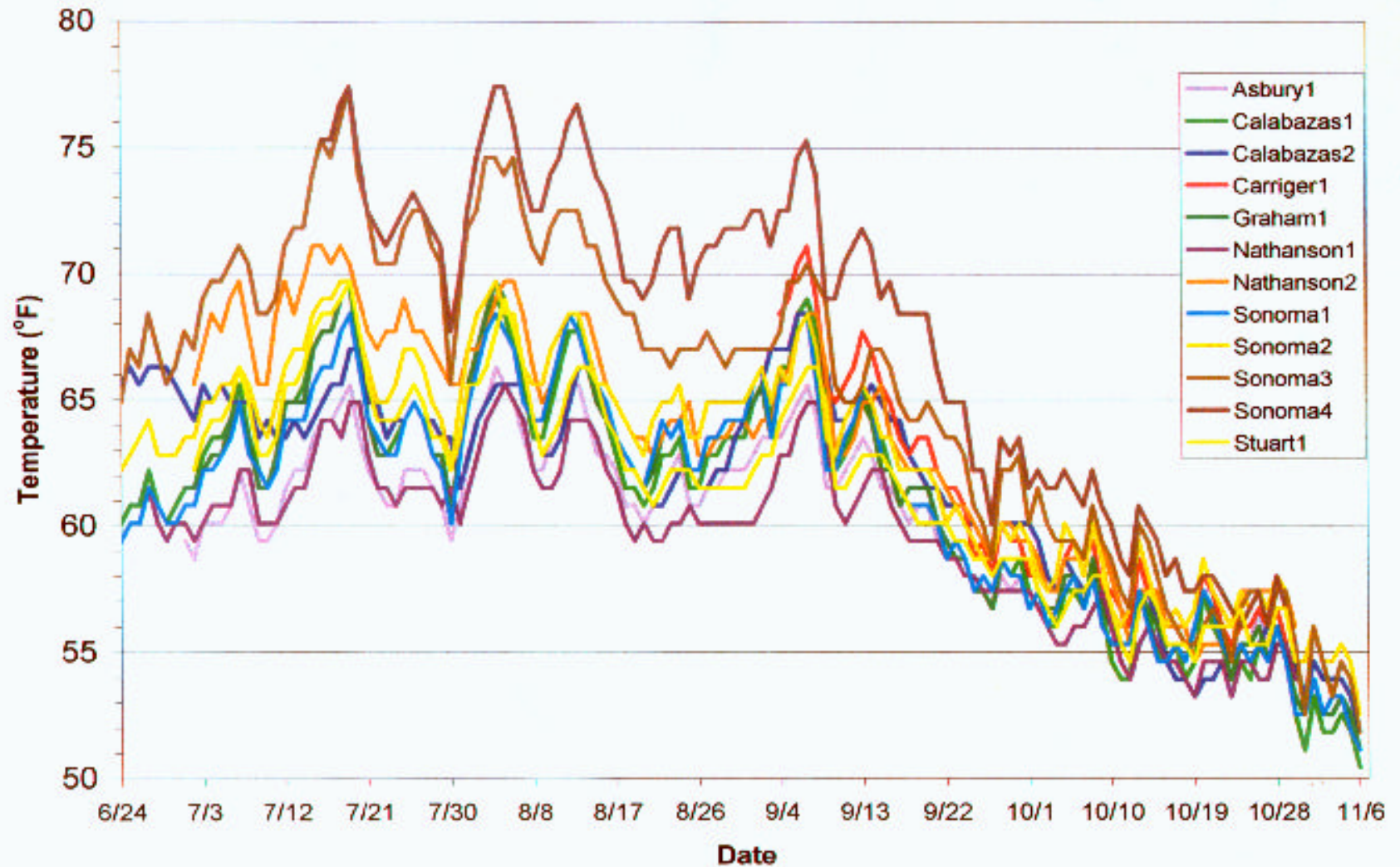


Fish census to determine population of steelhead



Low-flow monitoring

Maximum Daily Temperatures in Sonoma Valley Creeks from 6/24/98 to 11/6/98



Habitat Restoration

(Asbury Creek Fish Passage Enhancement Project)



Fish Habitat Restoration

(Sonoma Creek at
Warms Springs Road)



Non-native Pest Plant Removal *Arundo donax* Eradication Project





Evening informational talks since 1994

Funder	Project Type	\$1,000s	Start
CALFED Eco. Resto.	Fish passage repair		2000
SWRCB 319h	Eroding roads/trails in State Parks		2000
	Creek Care Guide		2001
CALFED Eco. Resto.	Aquatic insect monitoring		2001
DFG	Landowner outreach and assistance		2001
DFG, EPA	Fish habitat survey	75	2001
San Francisco Foundation	Monitoring sediment levels	30	2001
Sonoma Co. Water Agency	Fish population census	40	2001
Sonoma Co. Water Agency, USGS	Re-establish USGS flow gage	75	2001
CALFED Watershed	Channel rehabilitation	25	2002
CALFED Watershed	Fish population survey	40	2002
CALFED Watershed	Public outreach and stakeholder coordination	110	2002
Switzer Foundation	Integration of watershed data	50	2002

Funder	Project Type	\$1,000s	Start
Bella Vista Foundation	Fish passage barriers	44	2003
DFG	Eroding roads/trails in State Parks	29	2003
DFG	Fish passage barriers		2003
DFG	Riparian revegetation	9.9	2003
EPA Five-Star	K-12 education and restoration	14	2003
Prop 13	Channel rehabilitation	137	2003
Prop 13	Eroding roads/trails in State Parks	134	2003
Prop 13	Instream habitat restoration	21	2003
Prop 13	Public outreach	31	2003
Prop 13	Sediment budget	261	2003
RWQCB	Limiting Factors Analysis for steelhead	175	2003
USGS, Sonoma County	Groundwater study		2003
IFR/NOAA	Fish passage barriers	43	2004

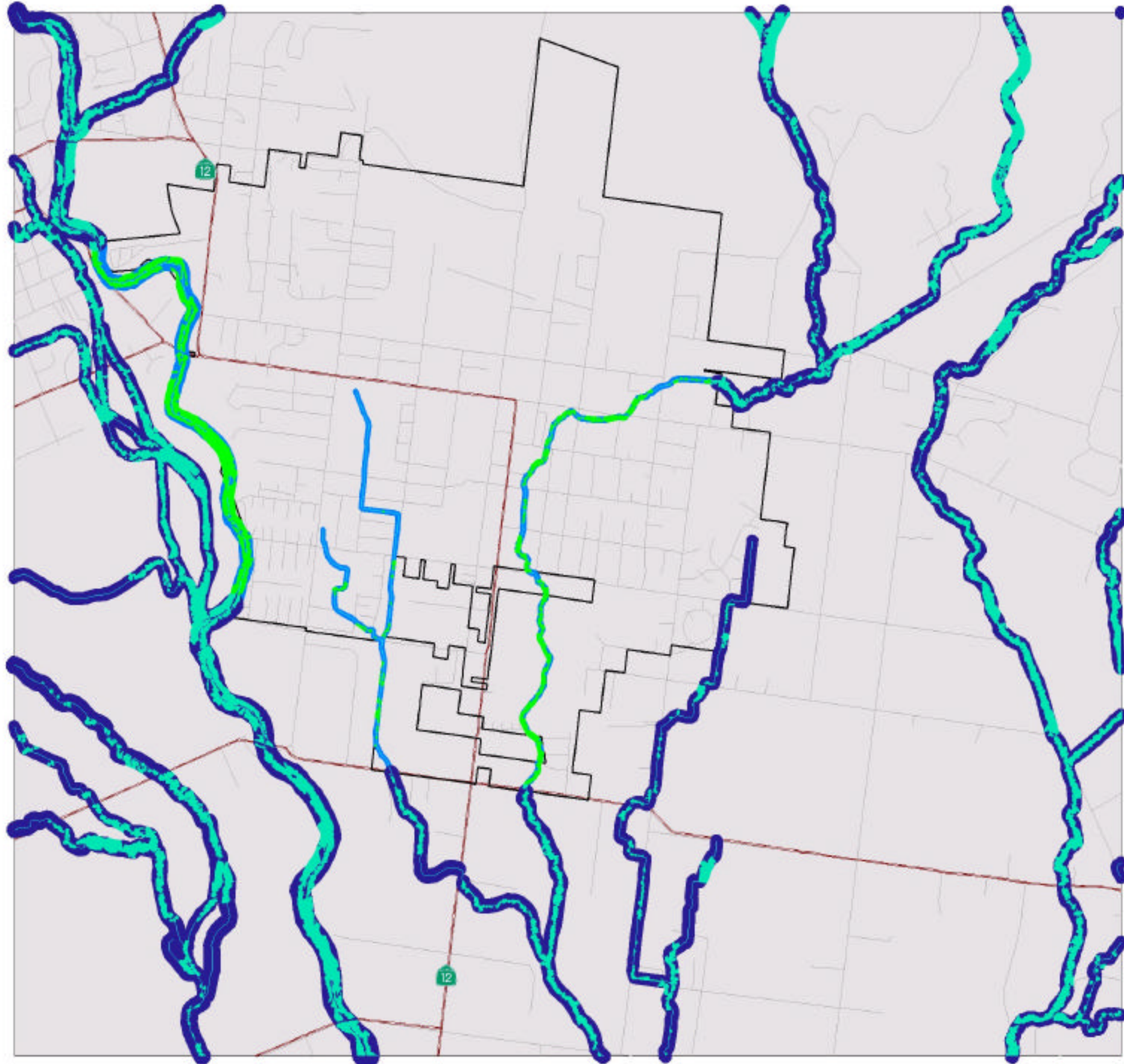


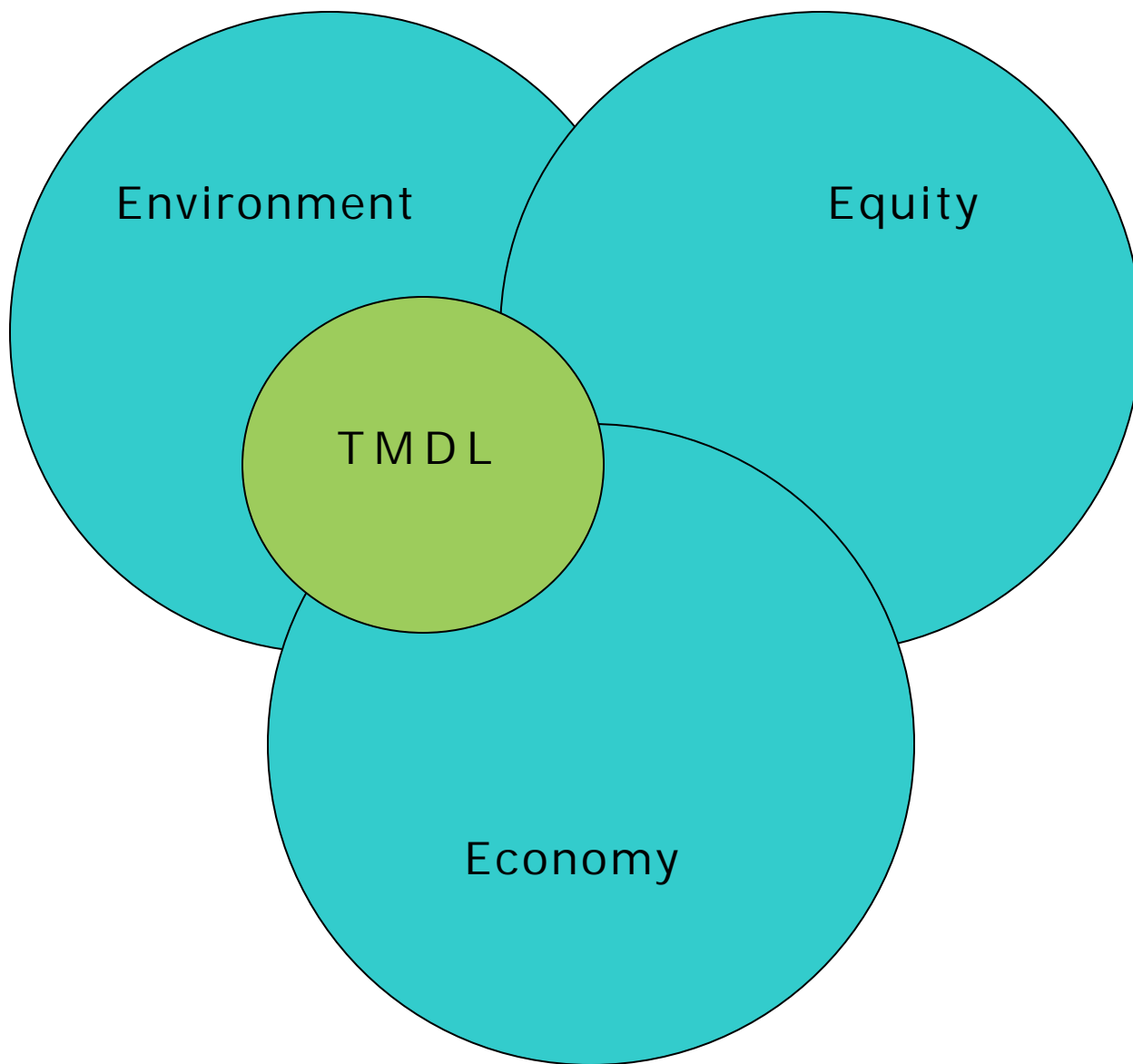
Monitoring
suspended
sediment
and turbidity

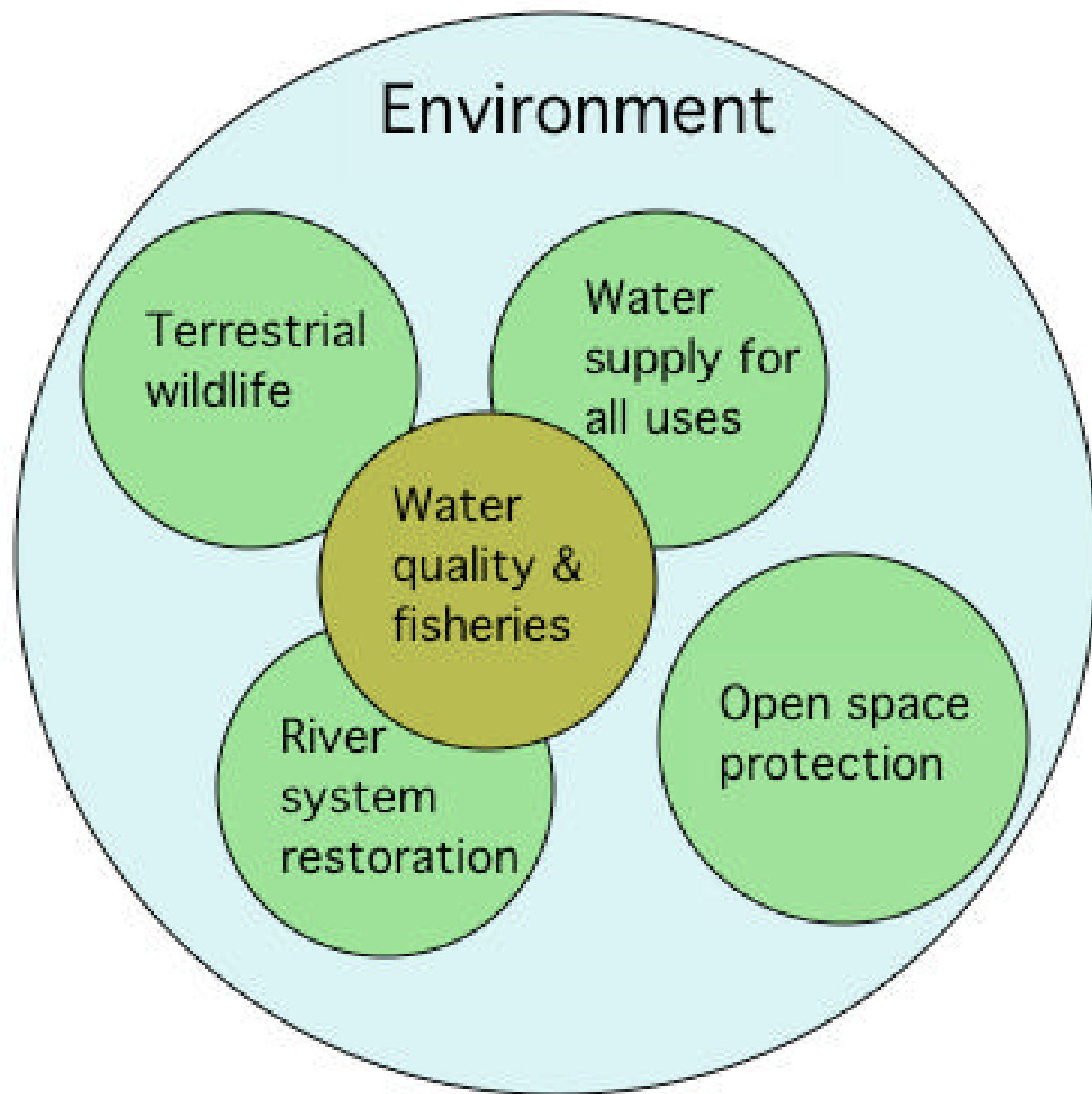




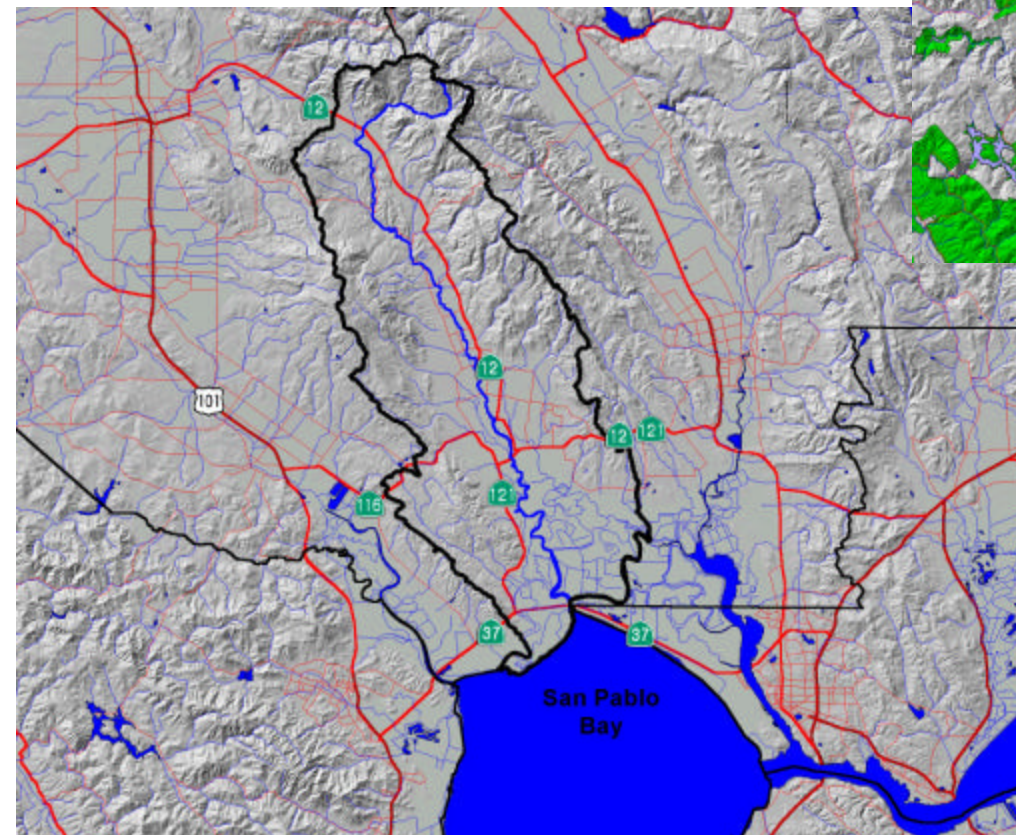
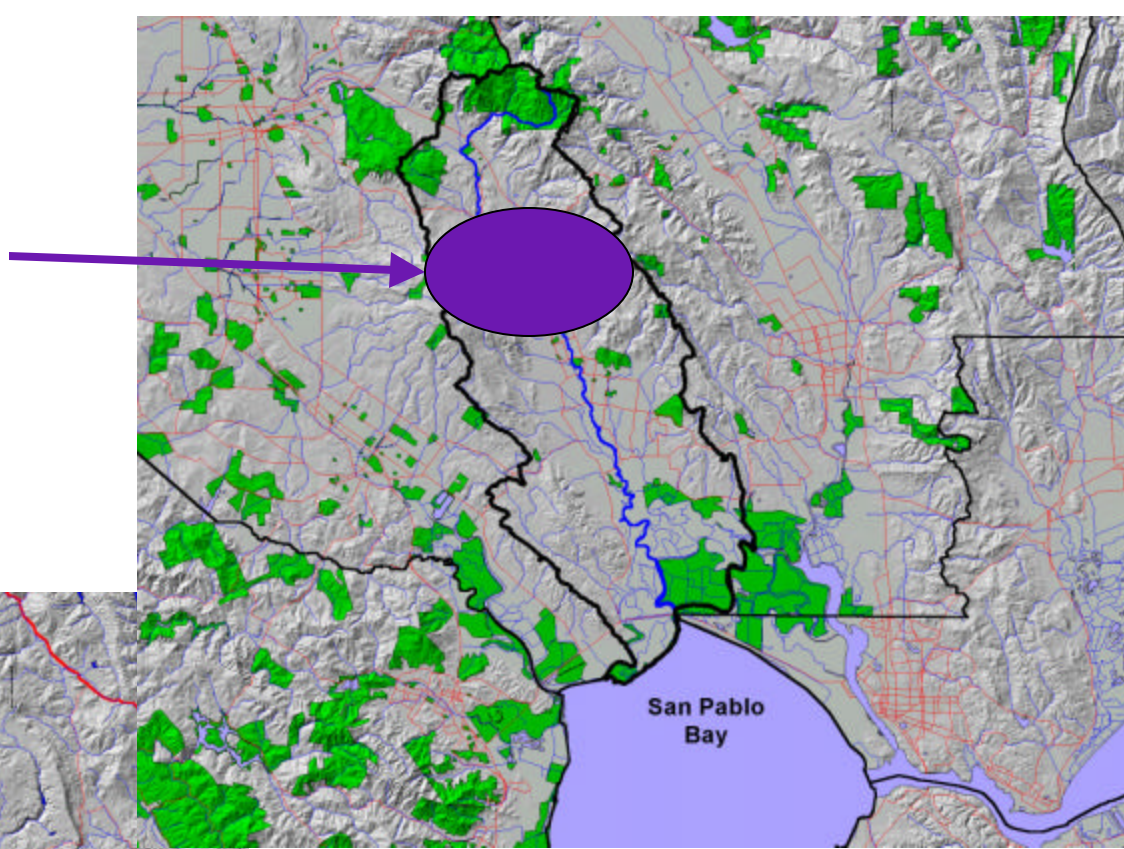




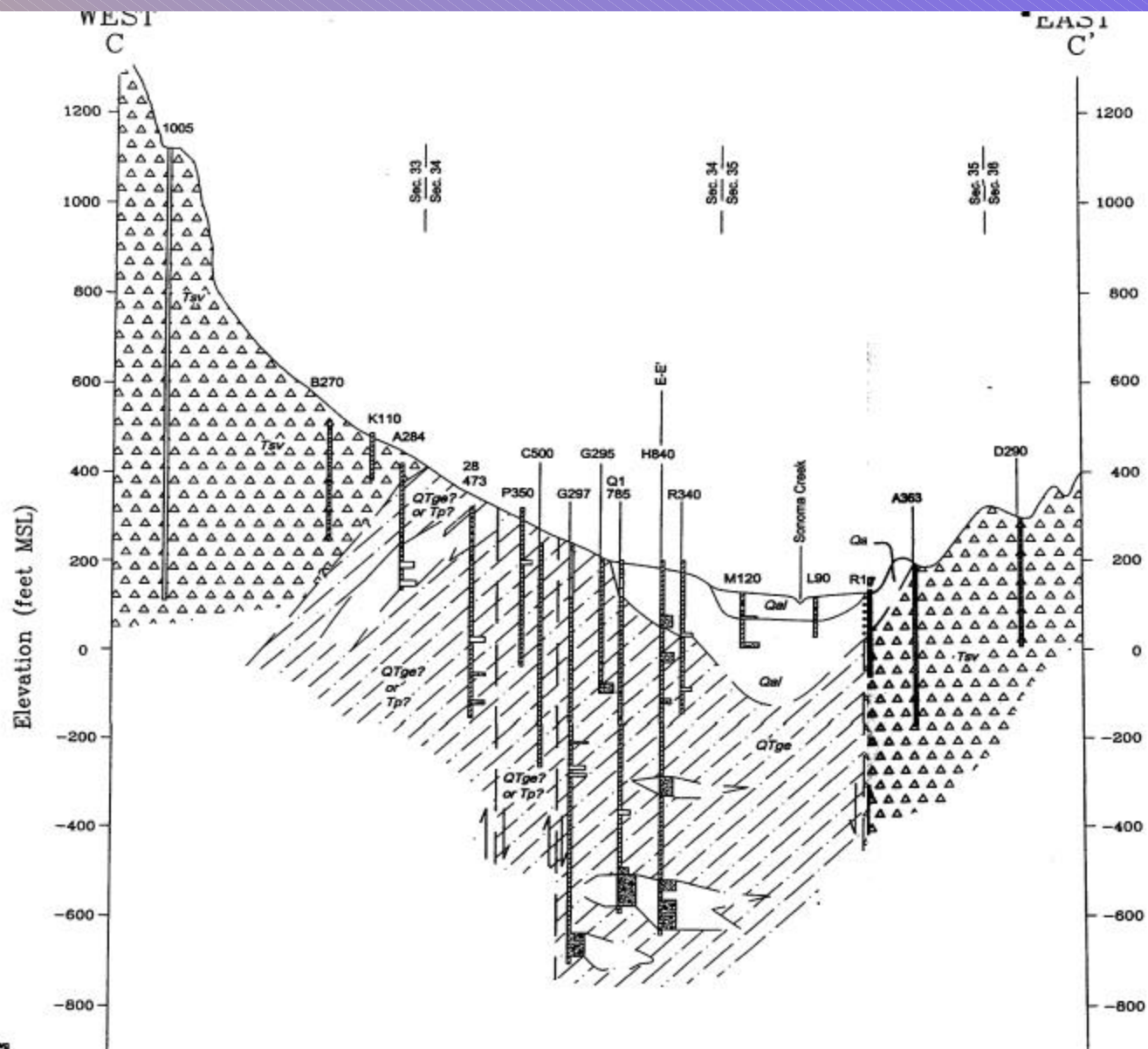




Sonoma Valley Habitat Corridor



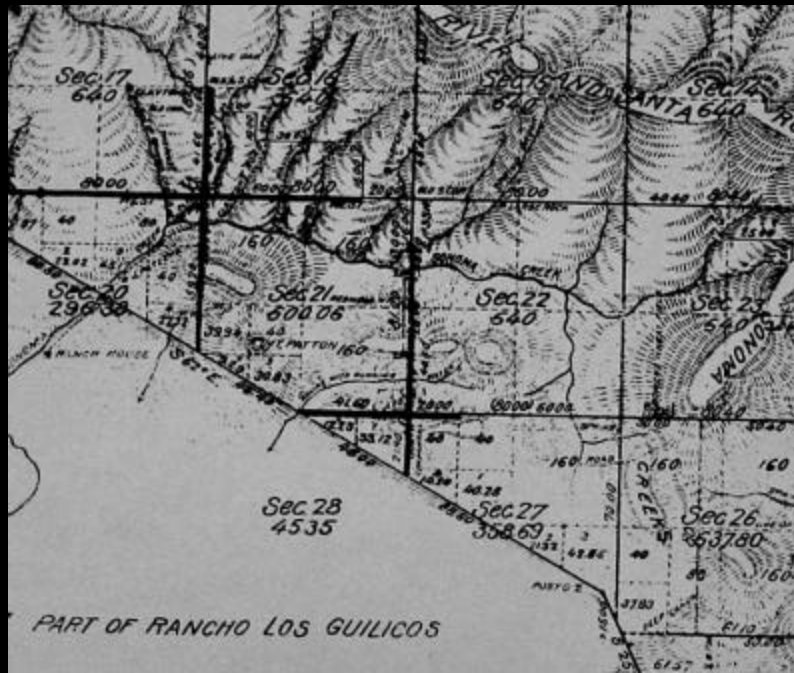




TMDL Negatives

- Not enough time or money to use local field data
- Confusion about outcomes
- Not enough involvement by affected parties
- Regulatory approach, with no adaptive management
- Water quantity issues left out

Historical Ecology



TMDL Positives

- Brings parties to the table
- Easier to get some kinds of funding
- May improve water quality!

Wish List

- Funders support...
 - Link between water quality and quantity
 - Participation by local interests
 - Historical sources of water quality problems
- Specific examples of possible implementation measures
- Enforcement issues valued as highly as new regulations
- One more year

